

a first hollow tubular member for providing irrigation fluid to a surgery site in a patient; and

a second hollow tubular member for suctioning fluid from said surgery site wherein said first and second tubular members surround a laser or an electrode.

73. (NEW) The fluid control system of claim 72 wherein said second tubular member surrounds said first tubular member to form a suction/irrigation tube.

74. (NEW) The fluid control system of claim 73 wherein said suction/irrigation tube is telescopic.

75. (NEW) The fluid control system of claim 73 further comprising a connector having a first end and a second end wherein said suction/irrigation tube is connected to said first end and a handpiece for controlling at least one of said laser and said electrode is connected to said second end.

REMARKS

Immediately before the Examiner's issuance of his September 22, 2000 Office Action, Applicant filed a Preliminary Amendment dated September 15, 2000 which requested the Examiner's consideration prior to examination of the above-identified application. However, in that Applicant's Preliminary Amendment was so closely filed to the Examiner's first Office Action, it appears that the Examiner did not receive Applicant's Preliminary Amendment in time for consideration before issuing the Examiner's first Office Action.

Accordingly, Applicant has copied and entered some of those same amendments to the claims that were made in its Preliminary Amendment dated September 15, 2000, and has also added claims containing additional and/or different limitations. Accordingly, Applicant respectfully requests that the Examiner disregard its Preliminary Amendment filed September 15, 2000 and instead respond to Applicant's amendments and remarks made herein.

The amendments made to the claims herein also include claims that were allowed by the Examiner of U.S. Patent No. 5,836,909 from which the instant application is continued. Those

claims as originally allowed were not included in that patent. No new matter is being added by this amendment.

Although the Examiner's claim rejections are directed to some claims which have now been cancelled, Applicant will nevertheless address the Examiner's combination of references in order to show that Applicant's claims, as now amended, in addition to those currently pending non-amended claims, are not obvious in light of those combined references.

Rejection Under 35 U.S.C. § 103(a) Based on Goodson et al. (U.S. Patent No. 4,735,603) in View of Sollerud (U.S. Patent No. 3,574,239)

The Examiner contends that Goodson et al. discloses a laser smoke evacuation system for smoke removal from the site of laser laparoscopy in a patient cavity which contains a gas pump connected through a control valve, a pressure sensor and a bacterial filter to a laparoscopic tube inserted into the patient, a return line from the second laparoscopic tube in a patient through a smoke filter, pressure sensors, a control valve, and a fluid trap into the return of the pump. Furthermore, the Examiner contends that the electrical supply and control circuitry shown in Figs. 2-4 shows that the control circuitry 34 is connected to the solid state relay 44 which is connected with and operates the pump 11 and the solenoid valves 13 and 25. The Examiner also contends that pressure transducers 15 and 24 are connected with a control circuitry and that the control circuitry includes comparators 70 and 71, a timer 72, and a missing pulse detector 73 which are connected with a pressure transducer. However, the Examiner does concede that Goodson et al. fails to disclose at least one fluid irrigation container, an irrigation tubing, suction and irrigation tubing contained within, and providing a second fluid irrigation container and tubing that is connected to the first irrigation tubing via a "Y" connector.

The Examiner also asserts that Sollerud teaches an apparatus for cleansing the patient whereby a washing medium is continuously supplied centrally through a pressure nozzle and is sucked off preferably through a suction nozzle arranged about the pressure nozzle after its use. More specifically, the Examiner contends that Sollerud teaches two containers 6 and 21 (first and second containers) connected by three-way valve 12 ("Y" connector), whereby fluid is delivered to the tubing 7 and 24 and sucked back into the suction nozzle 9 and 23. Accordingly, the Examiner contends that it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the invention of Goodson et al. with the fluid irrigation containers, tubing, irrigation/suction nozzles and "Y" connector as taught by Sollerud in order to

provide a quick and easy manner in applying suction and irrigation to the body. Applicant respectfully traverses this rejection.

"The proper approach to the obviousness issue must start with the claimed invention as a whole. 35 U.S.C. Section 102." Kimberly-Clark Corp. v. Johnson & Johnson, 745 F.2d 1437,1448, 223 U.S.P.Q. 603 (C.A.F.C. 1984). As a preliminary matter, Applicant submits that, even if the proposed combination were made, the invention of claims 22-75 would not be obtained.

With respect to independent claims 22 and 61, neither Goodson et al. or Sollerud discloses or suggests means for irrigating fluid to a site of a surgical device where the irrigation means is connected to means for employing the surgical device (where the surgical device is a surgical laser or electrosurgery electrode) such that the irrigating means is activated upon deactivation of the surgical device as required in independent claims 22 and 61.

With respect to independent claim 32, neither Goodson et al. or Sollerud discloses or suggests suctioning means for suctioning fluid from a patient through suction tubing at the site of a surgical device where the suction means is connected to means for employing the surgical device (where the surgical device is a surgical laser or electrosurgery electrode) such that the suctioning means is activated upon activation of the surgical device as recited in independent claim 32.

Further, neither Goodson et al. or Sollerud discloses or suggests first and second hollow tubular members attached to irrigation tubing and suction tubing, respectively, that surround a laser or an electrode as recited in independent claim 50. In addition, neither Goodson et al. or Sollerud discloses or suggests "a second fluid irrigation container connected to a second irrigation tubing having a second valve for accessing irrigation fluid in the second irrigation container wherein the first and second irrigation tubings are connected to a "Y" connector at a point subsequent to the attachment of their respective valves thereby resulting in a single irrigation conduit" as recited in independent claim 57. In Sollerud, only one irrigation container (5) is disclosed while two separate collecting containers (15 and 21) are shown.

With respect to independent claim 71, neither Goodson et al. or Sollerud discloses or suggests means for providing irrigation fluid to a surgery site and means for suctioning fluid from a surgery site where at least a portion of the means for providing and suctioning fluid surrounds means for providing a laser and/or electrode to the surgical site. Finally, with respect to independent claim 72, neither Goodson et al. or Sollerud discloses or suggests a first hollow

tubular member for providing irrigation fluid and a second hollow tubular member for suctioning fluid where the first and second tubular members surround a surgical laser or an electrosurgery electrode as recited in independent claim 68.

Accordingly, Applicant submits that each and every element of independent claim 22 (and claims 23-32, each of which variously depend from claim 22), independent claim 32 (and claims 33-45, each of which variously depend from claim 32), new independent claim 50 (and claims 51-56, each of which variously depend from claim 50), new independent claim 57 (and claims 58-60, each of which variously depend from claim 57), new independent claim 61 (and claims 62-70, each of which variously depend from claim 61), new independent claim 71, and new independent claim 72 (and claims 73-75, each of which variously depend from claim 72) would not be obvious to one of ordinary skill in the art having knowledge of Goodson et al. and Sollerud and Applicant respectfully requests the withdrawal of the rejection of claims 22-24, 26-29, 32-33, 36-37, 39-40 and 42-43 under 35 U.S.C. Section 103(a) and that claims 22-75 be allowed over Goodson et al. in view of Sollerud.

Rejection Under 35 U.S.C. § 103(a) Based on Goodson et al. (U.S. Patent No. 4,735,603) in View of Sollerud (U.S. Patent No. 3,574,239) as Applied Above, and Further in View of Boucly (U.S. Patent No. 5,607,408)

The Examiner states that Goodson et al. in view of Sollerud discloses the invention substantially as claimed except for the safety relay which shuts off the pumping means. The Examiner further states that Boucly teaches a skin treatment system comprising liquid circuit 16 for flow means to flow into one or more of input tubes 22 for coupling to dispatcher means 18 and that flow means includes a programmable time 30 controlling solenoid valve 32 and normally-closed solenoid valves 33 and 34 which are arranged to permit or prevent flow of treatment solutions out of vials 24-26. The Examiner also contends that Boucly discloses other suitable arrangements for manual setting and control of the various elements of the liquid and gas circuits at column 3, lines 26-36. Therefore, the Examiner argues that it would have been obvious to one of ordinary skill in the art to have provided the invention of Goodson et al. in view of Sollerud with the safety relay which shuts off the pumping means as taught by Boucly. Applicant respectfully traverses this rejection.

As previously stated, neither Goodson et al. or Sollerud discloses or suggests all of the

elements of Applicant's independent claims. Accordingly, the addition of Boucly to show the suggestion or disclosure of a safety feature cannot render any claims obvious since none of the three cited references discloses or suggests all of the elements of the independent claims. Moreover, even if the references did disclose each of the claim elements contained in all of the independent claims, Applicant contends that it would not have been obvious to combine the references as suggested by the Examiner to arrive at Applicant's claims. Specifically, Goodson et al. is directed to a method and apparatus for the removal of CO₂ laser produced smoke from a patient cavity during laparoscopy which utilizes at least two laparoscopic tubes – one for the insufflator to provide gas to the site and the second for withdrawing gas and smoke generated by the surgical procedure, while Sollerud is directed to an apparatus for bathing a bedridden patient which provides a cleaning foam and suction through the same nozzle. In that neither reference addresses, suggests or discloses how one would provide suction and irrigation in combination with an electrosurgical procedure utilizing one instrument for all three functions, it would not be obvious to combine these references in order to arrive at Applicant's invention.

For the above reasons, Applicant submits that claims 22-75 would not be obvious to one of ordinary skill in the art having knowledge of Goodson et al. and Sollerud in light of Boucly and Applicant respectfully requests the withdrawal of the rejection of claims 4, 15, 25 and 38 under 35 U.S.C. Section 103(a) and the allowance of claims 22-75 over Goodson et al. and Sollerud in view of Boucly.

Rejection Under 35 U.S.C. § 103(a) Based on Goodson et al. (U.S. Patent No. 4,735,603) in View of Sollerud (U.S. Patent No. 3,574,239) as Applied Above, and Further in View of Preen et al. (U.S. Patent No. 5,449,347)

The Examiner argues that Goodson et al. in view of Sollerud substantially discloses the invention as claimed except for the vacuum sensor and means for disconnecting the suction, but that Preen et al. teaches a plural power source suction apparatus where switches are provided for selecting alternating or direct current energy capabilities. The Examiner contends that Preen et al. teaches a current limit circuit breaker to disconnect the suction means. Applicant respectfully traverses this rejection.

As previously stated above, the combination of Goodson et al. and Sollerud fail to teach or suggest all of the elements of Applicant's independent claims. Accordingly, those dependent

claims containing a vacuum sensor connected to the suction tubing to deactivate the irrigation means when a restriction or occlusion is detected cannot be obvious in light of the prior art since all of the elements of the independent claim underlying the dependent claim have not been disclosed or suggested by the cited prior art.

Accordingly, Applicant submits that claim 41 would not be obvious to one of ordinary skill in the art having knowledge of Goodson et al. and Sollerud in light of Preen et al. and Applicant respectfully requests the withdrawal of the rejection of claim 41 under 35 U.S.C. Section 103(a) and the allowance of claims 22-75 over Goodson et al. and Sollerud in view of Preen et al.

Rejection Under 35 U.S.C. § 103(a) Based on Goodson et al. (U.S. Patent No. 4,735,603) in View of Sollerud (U.S. Patent No. 3,574,239) as Applied Above, and Further in View of LaVeen et al. (U.S. Patent No. 4,532,936)

In his rejection of claim 34, the Examiner states that Goodson et al. in view of Sollerud substantially discloses the invention as claimed except for the flow meter sensor. The Examiner contends that LaVeen et al. teaches an automatic urine flow meter having a measurement column, an optical sensor to determine when the measurement column is empty and a pump to empty the column at a known rate into a bag to determine the volume removed from the column. Therefore, the Examiner argues that it would have been obvious to one of ordinary skill in the art to have provided the invention of Goodson et al. in view of Sollerud with the low meter sensor taught by LaVeen to arrive at Applicant's claim. Like the previously set out rejections, Applicant respectfully traverses this rejection.

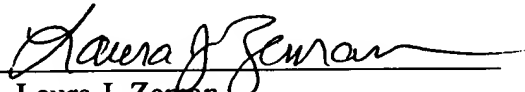
As previously stated above, the combination of Goodson et al. and Sollerud fail to teach or suggest all of the elements of Applicant's independent claims. Accordingly, those dependent claims containing a flow meter sensor cannot be obvious in light of the prior art since all of the elements of the independent claim underlying the dependent claim have not been disclosed or suggested by the cited prior art.

Accordingly, Applicant submits that claim 34 would not be obvious to one of ordinary skill in the art having knowledge of Goodson et al. and Sollerud in light of LaVeen et al. and Applicant respectfully requests the withdrawal of the rejection of claim 34 under 35 U.S.C. Section 103(a) and the allowance of claims 22-75 over Goodson et al. and Sollerud in view of

LaVeen et al.

In view of the foregoing, Applicant respectfully submits that all of the pending claims fully comply with 35 U.S.C. Section 112 and are allowable over the prior art of record. Reconsideration of the application and allowance of all pending claims is earnestly solicited. Should the Examiner wish to discuss any of the above in greater detail or deem that further amendments should be made to improve the form of the claims, then the Examiner is invited to telephone the undersigned at the Examiner's convenience.

Respectfully submitted,

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